Parallel Computing 18 (1992) 1433–1438
North-Holland

Author index to volume 18 (1992)

Adamides, E.D., P. Tsalides and **A. Thanailakis**, Hierarchical Cellular Automata structures 517
Aluru, S., G.M. Prabhu and **J. Gustafson**, A random number generator for parallel computers 839
Andersen, J., G. Mitra and **D. Parkinson**, The scheduling of sparse matrix-vector multiplication on a massively parallel DAP computer 675
Arbenz, P., Divide and conquer algorithms for the bandsymmetric eigenvalue problem 1105
Arunkumar, S., *see* **Chockalingam, T.** 1157
Arvind, D.K., On the detection of communication-related errors in concurrent programs 1381
Audet, D., Y. Savaria and **J.-L. Houle**, Performance improvements to VLSI parallel systems, using dynamic concatenation of processing resources 149

Basermann, A. and **P. Weidner**, A parallel algorithm for determining all eigenvalues of large real symmetric tridiagonal matrices 1129
Basu, A., *see* **Kumar, P.S.** 849
Baz, D.E., *see* **Ribeiro, C.** 1393
Bekakos, M.P. and **D.J. Evans**, The Double Alternating Group Explicit method for non-linear parabolic equations on MIMD parallel computers 879
Bentley, M. and **C.F. Fischer**, Hypercube conversion of serial codes for atomic structure calculations 1023
Beris, A.N., *see* **Stark, S.** 959
Bermond, J.-C., P. Michallon and **D. Trystram**, Broadcasting in wraparound meshes with parallel monodirectional links 639
Bertsekas, D.P., *see* **Varvarigos, E.A.** 1233
Bhattacharya, P., *see* **Suraweera, F.** 551
Bleakney, C.W., *see* **Clint, M.** 1325
Boglaev, Y.P., Exact dynamic load balancing of MIMD architectures with linear programming algorithms 615
Boxer, L., Finding congruent regions in parallel 807
Brickner, R.G., *see* **Hiromoto, R.** 241
Brudaru, O., *see* **Megson, G.M.** 415
Burg, H.C. and **J. Helin**, 1991 International Conference on Supercomputing 467
Butel, R., A Cray-2 versus CM-2 comparison using several polynomial benchmarks 931

Cannataro, M., *see* **Conforti, D.** 31
Carmona, E.A., *see* **Hockney, R.W.** 1067
Casiccia, P., P. Castangia, S. Cincotti and **G. Parodi**, Simulation of a molecular cellular array on a transputer-based parallel computer 313
Castangia, P., *see* **Casiccia, P.** 313
Chen, G.-H. and **J.-H. Jang**, An improved parallel algorithm for 0/1 knapsack problem 811
Chen, G.-H. and **W.-W. Liang**, Conflict-free broadcasting algorithms for graph traversals and their applications 439
Chen, G.-H., *see* **Hung, Y.-C.** 823
Chen, P., *see* **Murthy, V.K.** 75
Chockalingam, T. and **S. Arunkumar**, A randomized heuristics for the mapping problem: The genetic approach 1157
Choi, J.-J., *see* **Jeong, C.-S.** 221
Choi, Y.-H., An easily-diagnosable fault-tolerant binary tree architecture 1185
Chou, H.-C. and **C.-P. Chung**, A bound analysis of scheduling instructions on pipelined processors with a maximal delay of one cycle 393
Chu, E. and **A. George**, A balanced submatrix merging algorithm for multiprocessor architectures 1
Chu, Y.P. and **C.M. Hsieh**, An artificial neural network model with modified perceptron algorithm 983

0167-8191/92/$05.00 © 1992 – Elsevier Science Publishers B.V. All rights reserved

Chung, C.-P., *see* **Chou, H.-C.** 393
Chung, C.-P., *see* **Shiau, Y.-H.** 497
Cincotti, S., *see* **Casiccia, P.** 313
Clauss, P., C. Mongenet and **G.R. Perrin**, Synthesis of size-optimal toroïdal arrays for the Algebraic Path Problem: A new contribution 185
Clint, M., J.S. Weston and **C.W. Bleakney**, A comparison of two Fortran dialects for expressing parallel solutions for a problem in linear algebra 1325
Comish, D., *see* **Megson, G.M.** 415
Conforti, D., L. Grandinetti, R. Musmanno, M. Cannataro, G. Spezzano and **D. Talia**, A model of efficient asynchronous parallel algorithms on multicomputer systems 31
Cowell, W.R., *see* **Thompson, C.P.** 449
Cracknell, A.P., *see* **Khan, B.** 1335
Cripps, M., *see* **Sharp, D.** 1363

Daoudi, E.M. and **J. Lobry**, Implementation of a boundary element method on distributed memory computers 1317
Darlington, J., *see* **Sharp, D.** 1363
De Gloria, A., P. Faraboschi and **S. Ridella**, A dedicated massively parallel architecture for the Boltzman machine 57
Dongarra, J.J. and **R.A. van de Geijn**, Reduction to condensed form for the Eigenvalue problem on distributed memory architectures 973
Dontje, T., T. Lippert, N. Petkov and **K. Schilling**, Statistical analysis of simulation-generated time series: Systolic vs. semi-systolic correlation on the Connection Machine 575
Duller, A.W.G. and **R. Storer**, Simulation and verification of associative processor arrays 1403

Eğecioğlu, Ö. and **Ç.K. Koç**, A parallel algorithm for generating discrete orthogonal polynomials 649
El-Horbaty, E.-S.M. and **A.E.-D.H. Mohamed**, A synchronous algorithm for shortest paths on a tree machine 103
Elman, H.C., *see* **Zhang, G.** 1009
Erhard, W. and **A. Grefe**, Improved parallel algorithms for the classification of electroencephalograms (EEGs) on the DAP510 109
Evans, D.G., *see* **Morris, D.** 793
Evans, D.J., A systolic array design for matrix system solution by the symmetric bordering method 195
Evans, D.J. and **M. Gušev**, Implementation of folding transformations on linear VLSI processor arrays 525
Evans, D.J., *see* **Wheat, M.** 91
Evans, D.J., *see* **Margaritis, K.G.** 325
Evans, D.J., *see* **Megson, G.M.** 355
Evans, D.J., *see* **Bekakos, M.P.** 879
Evans, D.J., *see* **Tout, K.R.** 913
Evans, D.J., *see* **Gušev, M.** 997
Evans, D.J., *see* **Tasič, J.** 1053

Faraboschi, P., *see* **De Gloria, A.** 57
Filin, A.G. and **M.A. Frumkin**, A systolic array for inversion of a finite Radon transform 85
Fischer, C.F., *see* **Bentley, M.** 1023
Francis, R.S. and **L.J.H. Pannan**, A parallel partition for enhanced parallel QuickSort 543
Frumkin, M.A., *see* **Filin, A.G.** 85

Geiger, A., Parallel CFD '91 117
George, A., *see* **Chu, E.** 1
Goles, E. and **M. Kiwi**, A lower bound on the computational complexity of the *QR* decomposition on a shared memory SIMD computer 345
Goto, E., *see* **Spee, P.** 1349
Grandinetti, L., *see* **Conforti, D.** 31
Grefe, A., *see* **Erhard, W.** 109
Grosch, C.E., *see* **Zubair, M.** 1223
Gupta, A., *see* **Rothberg, E.** 719
Gupta, A.K. and **S.E. Hambrusch**, Load balanced tree embeddings 595

Gupta, S.N., *see* **Zubair, M.** 1223
Gušev, M. and **J. Tasič**, Comparative analysis of methods for broadcast elimination 857
Gušev, M. and **D.J. Evans**, VLSI processor array IPS cells 997
Gušev, M., *see* **Evans, D.J.** 525
Gušev, M., *see* **Tasič, J.** 1053
Gustafson, J., *see* **Aluru, S.** 839

Hambrusch, S.E., *see* **Gupta, A.K.** 595
Hancu, M.V.A., K. Iwasaki, Y. Sato and **M. Sugie**, Experimental results on the error detection capability of a concurrent test architecture for massively-parallel computers 1079
Hanxleden, R.V. and **L.R. Scott**, Correctness and determinism of Parallel Monte Carlo Processes 121
Hayes, L., *see* **Khan, B.** 1335
Hege, H.-C. and **R. Knecht**, Parallel Computing 91 473
Helin, J., *see* **Burg, H.C.** 467
Hill, J.M.D., Parallel lexical analysis and parsing on the AMT distributed array processor 699
Hiromoto, R., B.R. Wienke and **R.G. Brickner**, The performance of asynchronous iteration schemes applied to the linearized Boltzmann transport equation 241
Hockney, R.W. and **E.A. Carmona**, Comparison of communications on the Intel iPSC/860 and Touchstone Delta 1067
Holey, J.A. and **O.H. Ibarra**, Iterative algorithms for the planar convex hull problem on mesh-connected arrays 281
Hong, T.-P. and **S.-S. Tseng**, Parallel perceptron learning on a single-channel broadcast communication model 133
Horton, G. and **R. Knirsch**, A time-parallel multigrid-extrapolation method for parabolic partial differential equations 21
Houle, J.-L., *see* **Audet, D.** 149
Hsieh, C.M., *see* **Chu, Y.P.** 983
Hsieh, H.-F., *see* **Hsu, S.-C.** 377
Hsu, L.-H., P.-F. Wang and **C.-T. Wu**, Parallel algorithms for finding the most vital edge with respect to minimum spanning tree 1143
Hsu, S.-C., H.-F. Hsieh and **S.-T. Huang**, A fully-pipelined systolic algorithm for finding bridges on an undirected connected graph 377
Huang, S.-T., *see* **Hsu, S.-C.** 377
Hung, Y.-C. and **G.-H. Chen**, Distributed algorithms for the quickest path problem 823
Hutchinson, D., *see* **Khalaf, B.M.S.** 661

Ibarra, O.H., *see* **Holey, J.A.** 281
Iwasaki, K., *see* **Hancu, M.V.A.** 1079

Jang, J.-H., *see* **Chen, G.-H.** 811
Jeong, C.-S., J.-J. Choi and **D.-T. Lee**, Parallel enclosing rectangle on SIMD machines 221
Johnsson, S.L. and **R.L. Krawitz**, Cooley–Tukey FFT on the Connection Machine 1201

Kalamboukis, T.Z., A parallel algorithm for the dense symmetric eigenvalue problem on a transputer array 207
Kaufman, M., *see* **Žerovnik, J.** 897
Kefalas, P., *see* **Vlahavas, I.** 1275
Khalaf, B.M.S. and **D. Hutchinson**, Parallel algorithms for initial value problems: Parallel shooting 661
Khan, B., L. Hayes and **A.P. Cracknell**, The optimisation of higher order resampling methods in a multiprocessor environment 1335
Kishimoto, Y., *see* **Takeda, T.** 743
Kiwi, M., *see* **Goles, E.** 345
Knecht, R., *see* **Hege, H.-C.** 473
Knirsch, R., *see* **Horton, G.** 21
Koç, Ç.K., *see* **Eğecioğlu, Ö.** 649
Kodama, Y., *see* **Okamoto, K.** 901
Kohlhoff, S. and **J. Krone**, Performance evaluation of SUPRENUM for the LINPACK benchmark 231
Kolbezen, P., *see* **Robič, B.** 297
Krawitz, R.L., *see* **Johnsson, S.L.** 1201

Krishnamurthy, E.V., *see* **Murthy, V.K.** 75
Krone, J., *see* **Kohlhoff, S.** 231
Kumar, M.K., *see* **Kumar, P.S.** 849
Kumar, P.S., M.K. Kumar and **A. Basu**, A parallel algorithm for elimination tree computation and symbolic factorization 849
Kurita, G.I., *see* **Takeda, T.** 743

Leaf, G.K., *see* **Thompson, C.P.** 449
Lee, D.-T., *see* **Jeong, C.-S.** 221
Liang, W.-W., *see* **Chen, G.-H.** 439
Lin, R. and **S. Olariu**, A fast cost-optimal parallel algorithm for the lowest common ancestor problem 511
Lippert, T., K. Schilling and **N. Petkov**, Quark propagator on the Connection Machine 1291
Lippert, T., *see* **Dontje, T.** 575
Lobry, J., *see* **Daoudi, E.M.** 1317
Loots, W. and **T.H.C. Smith**, A parallel three phase sorting procedure for a k-dimensional hypercube and a transputer implementation 335
Lopez, L. and **T. Politi**, Parallel methods in the numerical treatment of population dynamic models 767
Lotti, G. and **M. Vajteršic**, The application of VLSI Poisson solvers to the biharmonic problem 11
Lu, M. and **X. Qiao**, Applying parallel computer systems to solve symmetric tridiagonal eigenvalue problems 1301

Mahadevan, I. and **L.M. Patnaik**, Performance evaluation of bidirectional associative memory on a transputer-based parallel system 401
Margaritis, K.G. and **D.J. Evans**, Systolic implementation of neural networks for searching sets of properties 325
Marrakchi, M., Optimal parallel scheduling for the 2-steps graph with constant task cost 169
Matsushita, S., *see* **Takeda, T.** 743
Megson, G.M., O. Brudaru and **D. Comish**, Systolic designs for Aitken's root finding method 415
Megson, G.M. and **D.J. Evans**, More on systolic line drawing 355
Michallon, P., *see* **Bermond, J.-C.** 639
Mitra, G., *see* **Andersen, J.** 675
Mohamed, A.E.-D.H., *see* **El-Horbaty, E.-S.M.** 103
Mongenet, C., *see* **Clauss, P.** 185
Morris, D. and **D.G. Evans**, Modelling distributed and parallel computer systems 793
Murthy, V.K., E.V. Krishnamurthy and **P. Chen**, Systolic algorithm for rational interpolation and Padé approximation 75
Musmanno, R., *see* **Conforti, D.** 31

Nakata, T., *see* **Takeda, T.** 743
Neusius, C., J. Olszewski and **D. Scheerer**, An efficient distributed thinning algorithm 47
Nielsen, S.S. and **S.A. Zenios**, Data structures for network algorithms on massively parallel architectures 1033

Oed, W., Cray Y-MP C90: System features and early benchmark results 947
Okamoto, K., Y. Kodama, S. Sakai and **Y. Yamaguchi**, Methodologies in development and testing of the dataflow machine EM-4 901
Olariu, S., *see* **Lin, R.** 511
Olszewski, J., *see* **Neusius, C.** 47

Pannan, L.J.H., *see* **Francis, R.S.** 543
Parkinson, D., *see* **Andersen, J.** 675
Parodi, G., *see* **Casiccia, P.** 313
Patnaik, L.M., *see* **Mahadevan, I.** 401
Perrin, G.R., *see* **Clauss, P.** 185
Perrin, G.-R., *see* **Violard, E.** 1167
Peters, F.J., Preface 1289
Petkov, N., *see* **Dontje, T.** 575
Petkov, N., *see* **Lippert, T.** 1291

Piskoulijski, P.I., Error analysis of parallel algorithm for the solution of a tridiagonal Toeplitz linear system of equations 431
Politi, T., *see* **Lopez, L.** 767
Prabhu, G.M., *see* **Aluru, S.** 839

Qiao, X., *see* **Lu, M.** 1301
Quatember, B., Concept of a crossbar switch for large-scale multiple processor systems in the field of process control 1415

Ribeiro, C. and **D.E. Baz**, A parallel optimal routing algorithm 1393
Ridella, S., *see* **De Gloria, A.** 57
Robert, Y. and **S.W. Song**, Revisiting cycle shrinking 481
Robič, B., P. Kolbezen and **J. Šilc**, Area optimization of dataflow-graph mappings 297
Rothberg, E. and **A. Gupta**, Parallel ICCG on a hierarchical memory multiprocessor – Addressing the triangular solve bottleneck 719

Sakai, S., *see* **Okamoto, K.** 901
Sato, M., *see* **Spee, P.** 1349
Sato, Y., *see* **Hancu, M.V.A.** 1079
Savaria, Y., *see* **Audet, D.** 149
Scheerer, D., *see* **Neusius, C.** 47
Schilling, K., *see* **Dontje, T.** 575
Schilling, K., *see* **Lippert, T.** 1291
Schreiber, H., O. Steinhauser and **P. Schuster**, Parallel molecular dynamics of biomolecules 557
Schüller, A., Parallelizing particle simulations based on the Boltzmann equation 269
Schuster, P., *see* **Schreiber, H.** 557
Scott, L.R., *see* **Hanxleden, R.V.** 121
Sergeyev, Y.D., *see* **Strongin, R.G.** 1259
Sharp, D., M. Cripps and **J. Darlington**, Parallel-architecture-directed program transformation 1363
Shen, H., Improved universal k-selection in hypercubes 177
Shiau, Y.-H. and **C.-P. Chung**, Adoptability and effectiveness of microcode compaction algorithms in superscalar processing 497
Šilc, J., *see* **Robič, B.** 297
Smith, T.H.C., *see* **Loots, W.** 335
Song, J., A distributed-termination experiment on a mesh-connected array of processors 779
Song, S.W., *see* **Robert, Y.** 481
Spee, P., W.F. Wong, M. Sato and **E. Goto**, Evaluation of the continuation bit in the Cyclic Pipeline Computer 1349
Spezzano, G., *see* **Conforti, D.** 31
Stark, S. and **A.N. Beris**, LU decomposition optimized for a parallel computer with a hierarchical distributed memory 959
Steinhauser, O., *see* **Schreiber, H.** 557
Storer, R., *see* **Duller, A.W.G.** 1403
Stpiczyński, P., Parallel Cholesky factorization on orthogonal multiprocessors 213
Strauss, H., Parallel CFD '92 1073
Strongin, R.G. and **Y.D. Sergeyev**, Global multidimensional optimization on parallel computer 1259
Sugie, M., *see* **Hancu, M.V.A.** 1079
Suraweera, F. and **P. Bhattacharya**, A parallel cost-optimal algorithm to compute the supremum of max-min powers 551

Takeda, T., K. Tani, T. Tsunematsu, Y. Kishimoto, G.I. Kurita, S. Matsushita and **T. Nakata**, Plasma simulator METIS for tokamak confinement and heating studies 743
Talia, D., *see* **Conforti, D.** 31
Tani, K., *see* **Takeda, T.** 743
Tasič, J., M. Gušev and **D.J. Evans**, Systolic implementation of preconditioned conjugate gradient method in adaptive transversal filters 1053
Tasič, J., *see* **Gušev, M.** 857
Thanailakis, A., *see* **Adamides, E.D.** 517

Thompson, C.P., W.R. Cowell and **G.K. Leaf**, On the parallelization of an adaptive multigrid algorithm for a class of flow problems 449
Thuné, M., The partitioning problem for a class of data parallel algorithms 867
Tout, K.R. and **D.J. Evans**, Parallel forward chaining technique with dynamic scheduling for rule-based expert systems 913
Trystram, D., *see* **Bermond, J.-C.** 639
Tsalides, P., *see* **Adamides, E.D.** 517
Tseng, S.-S., *see* **Hong, T.-P.** 133
Tsunematsu, T., *see* **Takeda, T.** 743

Vajteršic, M., *see* **Lotti, G.** 11
van de Geijn, R.A., *see* **Dongarra, J.J.** 973
Varvarigos, E.A. and **D.P. Bertsekas**, Communication algorithms for isotropic tasks in hypercubes and wraparound meshes 1233
Violard, E. and **G.-R. Perrin**, PEI: A language and its refinement calculus for parallel programming 1167
Vlahavas, I. and **P. Kefalas**, A parallel Prolog resolution based on multiple unifications 1275

Wang, C.-M. and **S.-D. Wang**, A hybrid scheme for efficiently executing nested loops on multiprocessors 625
Wang, P.-F., *see* **Hsu, L.-H.** 1143
Wang, S.-D., *see* **Wang, C.-M.** 625
Weidner, P., *see* **Basermann, A.** 1129
Weston, J.S., *see* **Clint, M.** 1325
Wheat, M. and **D.J. Evans**, An efficient parallel sorting algorithm for shared memory multiprocessors 91
Wienke, B.R., *see* **Hiromoto, R.** 241
Wong, W.F., *see* **Spee, P.** 1349
Worley, P.H., The effect of multiprocessor radius on scaling 361
Wu, C.-T., *see* **Hsu, L.-H.** 1143

Yamaguchi, Y., *see* **Okamoto, K.** 901

Zenios, S.A., *see* **Nielsen, S.S.** 1033
Žerovnik, J. and **M. Kaufman**, A parallel variant of a heuristical algorithm for graph coloring – Corrigendum 897
Zhang, G. and **H.C. Elman**, Parallel sparse Cholesky factorization on a shared memory multiprocessor 1009
Zubair, M., S.N. Gupta and **C.E. Grosch**, A variable precision approach to speedup iterative schemes on fine grained parallel machines 1223